United States
Department of
Agriculture

Soil
Conservation
Service

Washington Basin Outlook Report April 1, 1994

Basin Outlook Reports
and
Federal - State - Private
Cooperative Snow Surveys

For more water supply and resource management information, contact:

Local Soil Conservation Service Field Office
or
William Weller
Water Supply Specialist
Soil Conservation Service
W. 316 Boone Ave., Suite 450
Spokane, WA 99201-2348
(509) 353-2341

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Soil Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

Washington
Water Supply Outlook

April 1994

General Outlook

Forecasts for 1994 runoff vary from 90% of average for the Baker River to 51% for the Spokane River. The snowpack varies from a high of 90% of average in the Lewis River Basin to 62% in the Spokane River Basin. Washington SNOTEL sites averaged 81% of the normal snowpack for April 1, down from 86% on March 1 (By April 7, the statewide average was 83%). March precipitation was 65% of normal statewide. It varied from 109% of average in the Olympic Basins to 56% in the Walla Walla Basin. Year-to-date precipitation varies from 63% in the Spokane Basin to 89% in the Olympic Basin. March temperatures were above normal and varied from five degrees above in the Okanogan Basin to one degree above in the Yakima Basin. March streamflows varied from 154% of normal in the Skagit River to 53% in the Yakima River at Kiona. By April 1, reservoir storage increased slightly throughout the state, with reservoirs in the Yakima Basin at 40% of average and 28% of capacity.

Snowpack

Maximum snow cover was at Paradise SNOTEL near Mount Rainier, with a water content of 57.7 inches. Normal April 1 water content for this site would be 62.1 inches. The April 1 SNOTEL reading showed the snowpack to be 81% of average. Snowpack varied over the state, with the Spokane River Basin having the lowest with 62% of average, and the Lewis River Basin having the highest at 90% of normal. The Olympic Basins had 70% of average. Snowpack along the east slopes of the Cascade Mountains included the Yakima Basin with 83%, and the Wenatchee with 84%. Snowpack in the Okanogan Basin was at 76%, and the Colville had 81%.

Precipitation

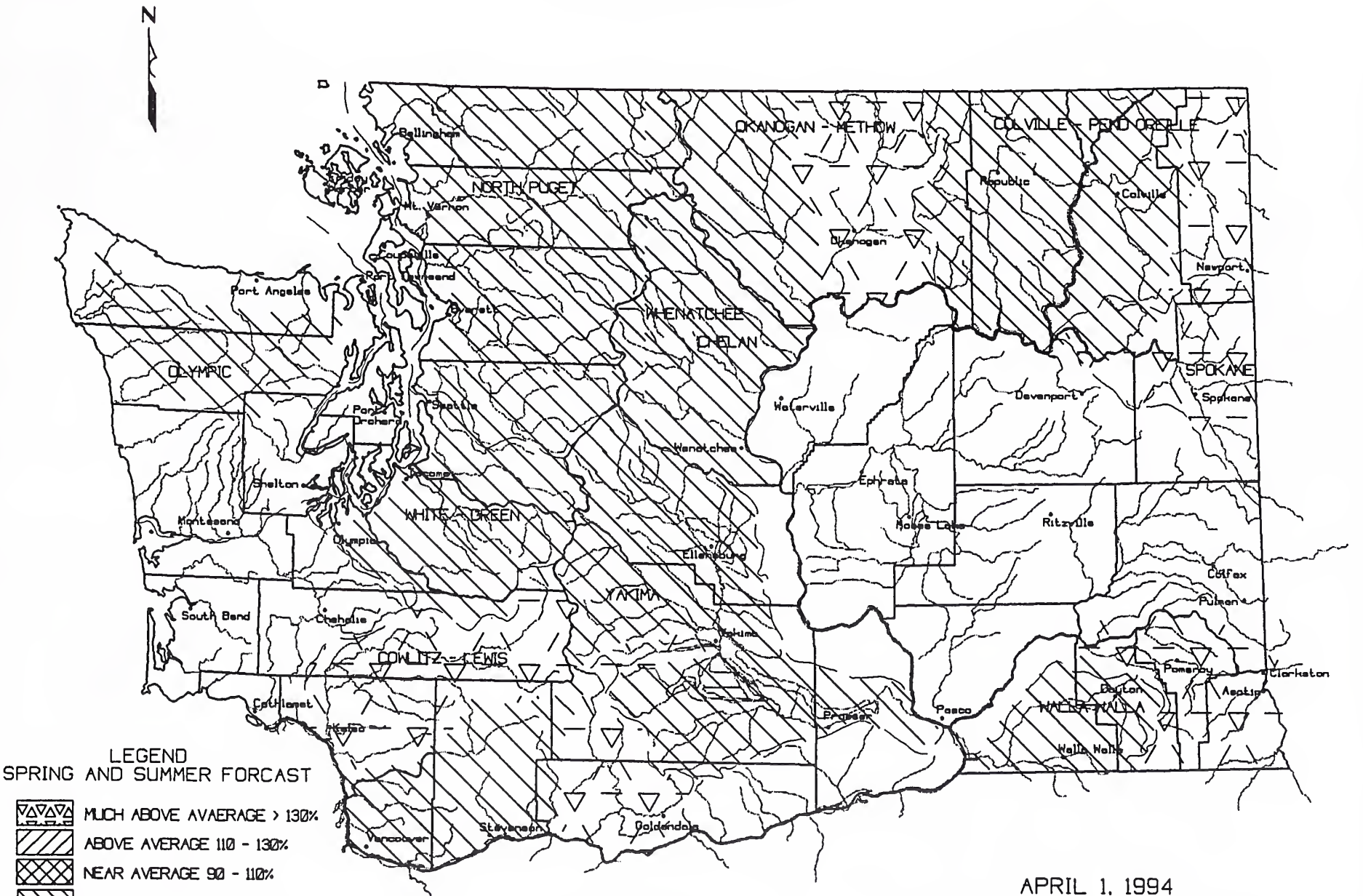
March precipitation varied from 109% of average in the Olympic Basin, to 56% in the Walla Walla Basin. March precipitation reported from National Weather Service stations was 65% of average statewide. The year-to-date precipitation statewide is 66% it varies from 63% of normal in the Spokane Basin, to 89% in the Olympic Basin. SNOTEL sites in Washington showed high elevation year-to-date precipitation values to be 79% of average. Maximum year-to-date precipitation was at the June Lake SNOTEL site near Mt. St. Helens, with 102.4 inches since October 1, 1993; normal for this site is 117.8 inches.

Reservoir

Streamflows continued below normal in March keeping the Yakima Basin reservoir storage below average. Reservoir storage in the Yakima Basin was 297,200 acre feet, 40% of normal. Storage at other reservoirs included Roosevelt at 230% of average, and the Okanogan reservoirs at 124% of normal for April 1. The power generation reservoirs included the following: Coeur d'Alene Lake, 105,500 acre feet, or 62% of normal; Chelan Lake, 109,400 acre feet, 52% of average and 16% of capacity, and Ross Lake at 264% of average and 56% of capacity.

Streamflow

March streamflows varied greatly in Washington. The Skagit River at 154% was the highest and the Yakima River at Kiona with 53% of normal, was the lowest in the state. Other streamflows were the following percentage of normal: the Cowlitz River, 115%; the Okanogan River, 127%; the Wenatchee River, 100%; the Columbia at the Canadian border, 96%, and the Spokane River, 59%. Forecasts for summer streamflows are for below to much below average. They vary from 90% of average for the Baker River in the North Puget Basin to 51% of normal for the Spokane River at Long Lake. April forecasts for some west side streams include: Cedar River, 82%; Green River, 89%; and the Dungeness River, 73%. Some east side streams include the Walla Walla River, 71%; the Wenatchee River, 67%; and the Pend Oreille River, 59%. The Okanogan River is forecast to have 67% of normal runoff and the Yakima near Parker 71%.



LEGEND
SPRING AND SUMMER FORCAST

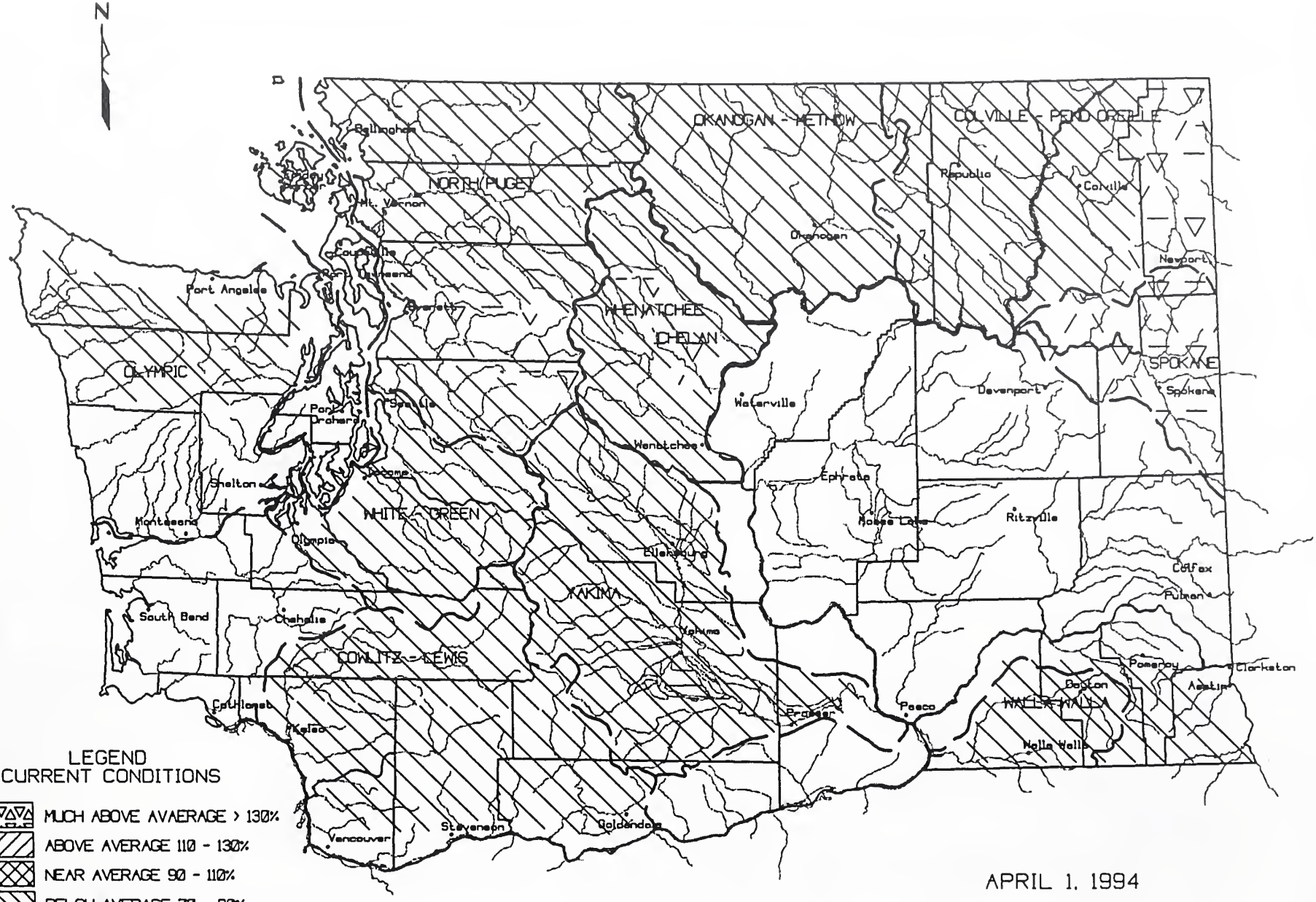
- MUCH ABOVE AVAERAGE > 130%
- ABOVE AVERAGE 110 - 130%
- NEAR AVERAGE 90 - 110%
- BELOW AVERAGE 70 - 90%
- MUCH BELOW AVERAGE < 70%
- NOT FORCASTED
- WATERSHED BOUNDARY

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

APRIL 1, 1994

STREAMFLOW PROSPECTS
WASHINGTON

NTS


N
OKANOGAN - METHOW
COLVILLE - PEND OREILLE
NORTH/PUGET
WHENATCHEE
CHELAN
OLYMPIC
WHITE - GREEN
YAKIMA
COWLITZ - LEWIS
WALLA WALLA
SPOKANE
Bellingham
Mt. Vernon
Port Angeles
Port Orchard
Seattle
Shelton
Montesano
Olympia
South Bend
Chehalis
Kelso
Vancouver
Stevenson
Goldendale
Yakima
Ellensburg
Wenatchee
Waterville
Ephrata
Moses Lake
Ritzville
Republic
Colville
Newport
Okanogan
Spokane
Davenport
Colfax
Pullman
Pomeroy
Clarkston
Dayton
Asotin
Pasco
Prosser
Walla Walla
LEGEND
CURRENT CONDITIONS
MUCH ABOVE AVAERAGE > 130%
ABOVE AVERAGE 110 - 130%
NEAR AVERAGE 90 - 110%
BELOW AVERAGE 70 - 90%
MUCH BELOW AVERAGE < 70%
NOT MONITORED
WATERSHED BOUNDARY
U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
APRIL 1, 1994
MOUNTAIN SNOWPACK
WASHINGTON
NTS

LOST - DATA CURRENT AS OF: 4/ 7/94 13:17:47

BASIN SUMMARY OF SNOW COURSE DATA

APRIL 1994

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
PEND OREILLE RIVER						
BENTON MEADOW	2370	4/01/94	3	1.2	5.6	3.8
BENTON SPRING	4920	4/01/94	31	12.6	13.6	18.6
BOYER MOUNTAIN	5250	3/28/94	49	18.6	17.9	25.7
BUNCHGRASS MEADOWS	5000	3/28/94	64	25.2	19.0	29.5
BUNCHGRASS MDWPILLOW	5000	4/01/94	---	21.3	19.8	26.6
CHEWALAH	4930	3/29/94	41	14.4	--	16.1
HEART LAKE TRAIL	4800	3/28/94	44	13.8	15.6	21.6
HOODOO BASIN	6050	3/28/94	89	30.4	32.2	51.0
HOODOO CREEK	5900	3/28/94	76	25.2	29.2	46.3
NELSON CAN.	3100	3/31/94	42	16.1	12.8	15.5
KETTLE RIVER						
BARNES CREEK CAN.	5300	3/27/94	55	22.1	16.5	20.6
BIG WHITE MTN CAN.	5510	3/28/94	50	17.6	15.7	19.4
BUTTE CREEK	4070	3/29/94	19	5.7	8.8	9.0
CARMI CAN.	4100	3/27/94	16	4.7	6.5	6.4
FARRON CAN.	4000	3/30/94	31	11.2	9.7	13.9
GOAT CREEK	3600	3/29/94	3	.9	5.1	4.3
GRAYSTOKE LAKE CAN.	5940	3/31/94	38	13.5	12.8	17.6
MONASHEE PASS CAN.	4500	3/27/94	35	11.2	12.4	14.0
SUMMIT G.S.	4600	3/29/94	17	4.9	9.2	8.1
TRAPPING CK LOW CAN.	3050	3/27/94	11	3.9	3.2	3.5
TRAPPING CK UP CAN.	4460	3/27/94	22	7.8	8.0	9.8
COLVILLE RIVER						
CHEWALAH	4930	3/29/94	41	14.4	--	16.1
STRANGER MOUNTAIN	4230	3/29/94	30	9.9	13.8	12.2
TOGO	3370	4/01/94	---	7.5E	10.7	10.8
OMAK LAKE, TWIN LAKES						
MOSES MOUNTAIN (1)	4800	3/31/94	48	12.0	12.6	13.5
MOSES MTN PILLOW	4800	4/01/94	---	7.9S	--	15.5
MOSES MEADOWS (3)	3800	3/31/94	0	.0	3.6	--
MOSES PEAK (2)	6650	3/31/94	33	12.0	10.4	5.7
MOUNT TOLMAN	2000	3/31/94	0	.0	4.4	--
TWIN LAKES	2700	3/31/94	0	.0	5.1	5.2
SPOKANE RIVER						
FOURTH OF JULY SUM	3200	4/01/94	0	.0	6.4	6.8
LOST LAKE (d)	6110	4/01/94	---	31.5E	42.1	57.0
MOSQUITO RDG PILLOW	5200	4/01/94	---	25.3	29.0	37.3
SUNSET	5540	3/31/94	44	15.9	20.3	31.8
SUNSET PILLOW	5540	4/01/94	---	19.0	24.2	37.6
NEWMAN LAKE						
QUARTZ PEAK PILLOW	4700	4/01/94	---	16.2	18.2	21.9
RAGGED RIDGE	3330	4/01/94	---	.0E	6.5	3.5
OKANOGAN RIVER						
ABERDEEN LAKE CAN.	4300	3/30/94	14	4.3	6.5	6.1
BRENDA MINE CAN.	4800	3/28/94	26	8.4	11.1	13.0
BROOKMERE CAN.	3200	4/02/94	13	3.6	4.6	8.6
ENDERBY CAN.	6200	4/01/94	100	37.8	31.1	38.6
ESPERON CK. UP CAN.	5410	3/27/94	42	15.2	15.4	18.7
ESPERON CK. MID CAN.	4690	3/27/94	38	13.1	12.7	15.5
FREEZEOUT CK. TRAIL	3500	3/27/94	21	6.8	8.1	11.5
GREYBACK RES CAN.	5120	3/29/94	28	8.0	9.0	9.1
HAMILTON HILL CAN.	4890	3/30/94	26	9.3	11.1	15.1
HARTS PASS	6500	3/26/94	83	30.7	28.4	42.6
HARTS PASS PILLOW	6500	4/01/94	---	30.3S	28.2	41.3
ISINTOK LAKE CAN.	5500	3/30/94	12	3.7	7.4	7.6
LIGHTNING LAKE CAN.	4000	3/31/94	21	6.1	7.5	12.7
MCCULLOCH CAN.	4200	3/31/94	13	4.7	6.5	6.7
MISSEZULA MTN CAN.	5090	3/30/94	19	5.7	6.7	9.4
MISSION CREEK CAN.	5800	3/31/94	53	18.9	16.4	20.4
MONASHEE PASS CAN.	4500	3/27/94	35	11.2	12.4	14.0
MT. KOBAU CAN.	5900	3/27/94	31	9.6	11.2	12.9
MUTTON CREEK #1	5700	3/30/94	29	11.2	8.3	13.2
OYAMA LAKE CAN.	4400	3/29/94	20	6.4	6.4	7.0
POSTILL LAKE CAN.	4500	3/31/94	26	8.0	7.2	9.0
RUSTY CREEK	4000	3/30/94	7	2.4	4.8	5.9
SALMON MDWS PILLOW	4500	4/01/94	---	7.5S	7.9	9.4
SILVER STAR MTN CAN.	6000	4/01/94	71	29.1	28.7	29.2
SUMMERLAND RES CAN.	4200	3/30/94	15	4.3	8.8	9.5
SUNDAY SUMMIT CAN.	4300	3/31/94	2	.7	2.5	4.7
TROUT CREEK CAN.	4690	3/31/94	9	2.9	6.6	7.2
VASEUX CREEK CAN.	4600	3/30/94	18	6.1	5.2	6.6
WHITE ROCKS MTN CAN.	6000	3/31/94	44	17.0	15.9	23.9
METHOW RIVER						
HARTS PASS	6500	3/26/94	83	30.7	28.4	42.6
HARTS PASS PILLOW	6500	4/01/94	---	30.3S	28.2	41.3
MUTTON CREEK #1	5700	3/30/94	29	11.2	8.3	13.2
RUSTY CREEK	4000	3/30/94	7	2.4	4.8	5.9
SALMON MDWS PILLOW	4500	4/01/94	---	7.5S	7.9	9.4
CHELAN LAKE BASIN						
CLOUDY PASS AM	6500	3/28/94	72	30.2	--	42.1
LYMAN LAKE	5900	3/28/94	107	45.9	--	58.7
LYMAN LAKE PILLOW	5900	4/01/94	---	45.8S	34.3	56.9
LITTLE MDWS AM	5280	3/28/94	88	38.7	--	44.0
MINERS RIDGE PILLOW	6200	4/01/94	---	40.7S	32.2	52.2
PARK CREEK RIDGE	4600	3/28/94	80	34.9	--	43.1
PARK CK RIDGE PILLOW	4600	4/01/94	---	24.6S	27.6	41.6
RAINY PASS	4780	3/27/94	80	31.0	25.8	39.3
RAINY PASS PILLOW	4780	4/01/94	---	31.1S	26.0	38.0
ENTIAT RIVER						
BRIEF	1600	3/30/94	0	.0	5.0	2.5
POPE RIDGE PILLOW	3540	4/01/94	---	12.2S	11.8	15.7
WENATCHEE RIVER						
BERNE-MILL CREEK (d)	3170	3/30/94	68	27.5	17.9	27.2
BLEWETT PASS #2	4270	3/29/94	30	10.3	8.7	15.1
BLEWETT PASS#2PILLOW	4270	4/01/94	---	12.7S	12.5	17.8
CHIWAUKUM G.S.	2500	3/30/94	27	11.2	5.7	8.9
FISH LAKE PILLOW	3370	4/01/94	---	28.8S	19.8	31.9
LYMAN LAKE	5900	3/28/94	107	45.9	--	58.7
LYMAN LAKE PILLOW	5900	4/01/94	---	45.8S	34.3	56.9
MERRITT	2140	3/30/94	21	7.0	7.8	12.8
MISSION RIDGE	5000	3/31/94	39	13.9	15.5	16.5

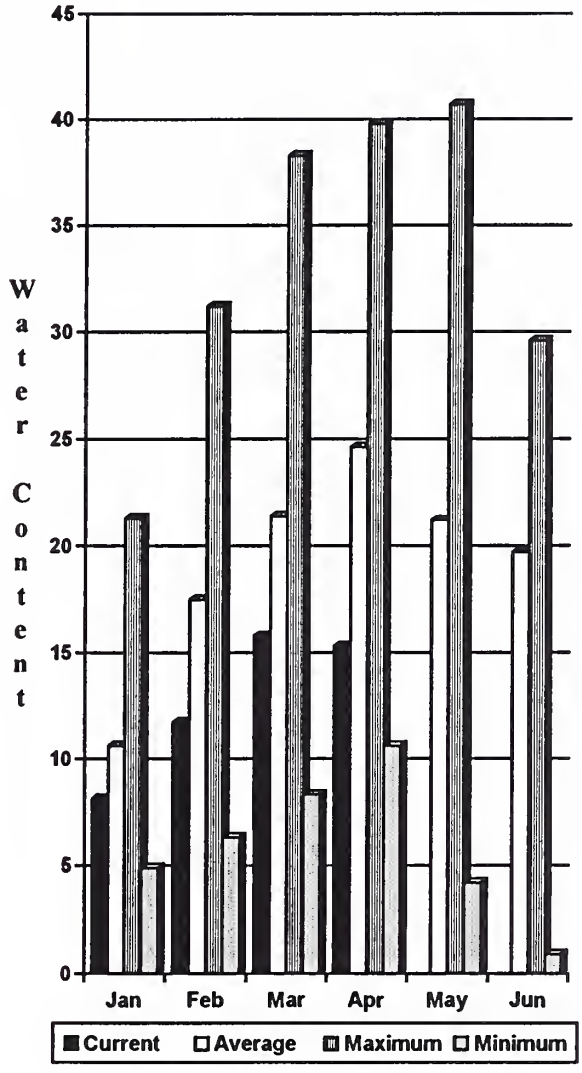
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
STEVENS PASS PILLOW	4070	4/01/94	---	39.6S	30.4	42.3
STEVENS PASS SAND SD	3700	3/30/94	62	25.6	20.7	33.7
TROUGH #2 PILLOW	5310	4/01/94	---	7.0S	8.0	9.7
UPPER WHEELER	4400	3/29/94	2	.9	10.7	7.8
UPPER WHEELER PILLOW	4400	4/01/94	---	10.0S	12.4	13.6
SQUILCHUCK CREEK						
STEMILT CREEK						
STEMILT SLIDE	5000	3/29/94	24	9.0	12.3	12.8
UPPER WHEELER	4400	3/29/94	2	.9	10.7	7.8
UPPER WHEELER PILLOW	4400	4/01/94	---	10.0S	12.4	13.6
COLOCKUM CREEK						
TROUGH #2 PILLOW	5310	4/01/94	---	7.0S	8.0	9.7
YAKIMA RIVER						
AHTANUM R.S.	3100	4/01/94	3	1.8	8.8	5.3
BIG BOULDER CREEK	3200	4/01/94	---	16.6E	--	17.8
BLEWETT PASS #2	4270	3/29/94	30	10.3	8.7	15.1
BLEWETT PASS#2PILLOW	4270	4/01/94	---	12.7S	12.5	17.8
BUMPING LAKE	3450	3/30/94	29	11.2	8.5	14.2
BUMPING LAKE (NEW)	3400	3/30/94	38	15.1	11.3	18.3
BUMPING RIDGE PILLOW	4600	4/01/94	---	23.5S	34.5	21.2
CAYUSE PASS	5300	4/01/94	---	75.8E	63.8	82.4
COLOCKUM PASS	5370	3/29/94	35	12.6	13.7	16.5
CORRAL PASS PILLOW	6000	4/01/94	---	26.6S	26.0	32.6
FISH LAKE	3370	4/01/94	---	28.3E	19.0	31.4
FISH LAKE PILLOW	3370	4/01/94	---	28.8S	19.8	31.9
GREEN LAKE	6000	4/01/94	---	30.0E	30.7	33.9
GREEN LAKE PILLOW	6000	4/01/94	---	18.3S	19.9	20.7
GROUSE CAMP PILLOW	5380	4/01/94	---	15.5S	11.8	19.8
LOST HORSE PILLOW	5000	4/01/94	---	16.0S	18.9	26.4
HORSE LAKE PILLOW	5400	4/01/94	---	39.9S	38.7	47.2
OLALLIE MDWS PILLOW	3960	4/01/94	---	39.7S	35.3	53.5
OLALLIE MEADOWS	3630	4/03/94	61	28.7	14.7	44.8
SASSE RIDGE PILLOW	4200	4/01/94	---	30.0S	27.0	32.1
STAMPEDE PASS PILLOW	3860	4/01/94	---	36.5S	33.1	44.4
TUNNEL AVENUE	2450	3/28/94	40	16.4	12.7	20.8
WHITE PASS ES PILLOW	4500	4/01/94	---	20.7S	17.9	22.9
AHTANUM CREEK						
AHTANUM R.S.	3100	4/01/94	3	1.8	8.8	5.3
GREEN LAKE	6000	4/01/94	---	30.0E	30.7	33.9
GREEN LAKE PILLOW	6000	4/01/94	---	18.3S	19.9	20.7
LOST HORSE PILLOW	5000	4/01/94	---	16.0S	18.9	26.4
MILL CREEK						
HIGH RIDGE PILLOW	4980	4/01/94	---	20.8S	25.0	24.4
TOUCHET #2 PILLOW	5530	4/01/94	---	25.0	30.5	31.9
LEWIS - COWLITZ RIVERS						
CAYUSE PASS	5300	4/01/94	---	75.8E	63.8	82.4
JUNE LAKE PILLOW	3200	4/01/94	---	28.7S	32.5	36.3
LONE PINE PILLOW	3800	4/01/94	---	28.9E	25.3	32.1
PARADISE PARK PILLOW	5500	4/01/94	---	57.7S	55.1	62.1
PIGTAIL PEAK PILLOW	5900	4/01/94	---	37.6S	34.3	49.3
POTATO HILL PILLOW	4500	4/01/94	---	22.0S	19.2	25.3
SHEEP CANYON PILLOW	4050	4/01/94	---	30.1S	31.4	39.8
SPENCER MDW PILLOW	3400	4/01/94	---	29.5S	22.6	29.6
SPIRIT LAKE PILLOW	3100	4/01/94	---	.8S	.0	3.6
SURPRISE LKS PILLOW	4250	4/01/94	---	41.5S	37.8	44.2
WHITE PASS ES PILLOW	4500	4/01/94	---	20.7S	17.9	22.9
WHITE RIVER						
CAYUSE PASS	5300	4/01/94	---	75.8E	63.8	82.4
CORRAL PASS	6000	4/04/94	74	29.2	29.1	40.1
CORRAL PASS PILLOW	6000	4/01/94	---	26.6S	26.0	32.6
HORSE LAKE PILLOW	5400	4/01/94	---	39.9S	38.7	47.2
GREEN RIVER						
COUGAR MTN. PILLOW	3200	4/01/94	---	8.7S	10.1	18.8
GRASS MOUNTAIN #2	2900	4/01/94	---	9.9E	.0	15.9
LESTER CREEK	3100	4/01/94	---	15.1E	18.0	23.3
LYNN LAKE	4000	4/01/94	---	14.5E	11.8	22.0
SAWMILL RIDGE	4700	4/01/94	---	25.4E	22.7	36.3
STAMPEDE PASS PILLOW	3860	4/01/94	---	36.5S	33.1	44.4
CEDAR RIVER						
CITY CABIN	2390	3/28/94	0	.0E	4.7	13.6
MT. GARDNER	3300	3/28/94	16	7.0E	7.8	14.1
MT. GARDNER PILLOW	2860	4/01/94	---	9.1S	--	14.0
TINKHAM CREEK PILLOW	3000	4/01/94	---	22.5S	--	19.9
MEADOWS PASS PILLOW	3240	4/01/94	---	11.0S	--	24.9
SNOQUALMIE RIVER						
ALPINE MEADOWS	3500	3/28/94	69	31.0E	33.0	43.7
KROMONA MINE	2400	3/25/94	37	14.6	15.9	33.8
OLALLIE MDWS PILLOW	3960	4/01/94	---	39.7S	35.3	53.5
OLALLIE MEADOWS	3630	4/03/94	61	28.7	14.7	44.8
OLNEY PASS	3250	3/25/94	30	11.0	.0	25.6

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
SKYKOMISH RIVER						
STAMPEDE PASS PILLOW	3860	4/01/94	---	36.5S	33.1	44.4
STEVENS PASS PILLOW	4070	4/01/94	---	39.6S	30.4	42.3
STEVENS PASS SAND SD	3700	3/30/94	62	25.6	20.7	33.7
SKAGIT RIVER						
BEAVER CREEK TRAIL	2200	3/26/94	19	6.8	9.9	11.6
BEAVER PASS	3680	3/28/94	60	23.4	18.6	29.7
BROWN TOP AM	6000	3/26/94	126	50.4	39.6	59.6
CLOUDY PASS AM	6500	3/28/94	72	30.2	--	42.1
DEVILS PARK	5900	3/26/94	85	5.7	28.2	42.9
FREEZEOUT CK. TRAIL	3500	3/27/94	21	6.8	8.1	11.5
HARTS PASS	6500	3/26/94	83	30.7	28.4	42.6
HARTS PASS PILLOW	6500	4/01/94	---	30.3S	28.2	41.3
KLESILKWA CAN.	3710	3/27/94	10	2.9	4.8	12.4
LIGHTNING LAKE CAN.	4000	3/31/94	21	6.1	7.5	12.7
LYMAN LAKE	5900	3/28/94	107	45.9	--	58.7
LYMAN LAKE PILLOW	5900	4/01/94	---	45.8S	34.3	56.9
MEADOWS CABIN	1900	3/28/94	2	.8	.9	4.8
NEW HOZOMEEN LAKE	2800	3/27/94	16	20.0	7.0	10.4
RAINY PASS	4780	3/27/94	80	31.0	25.8	39.3
RAINY PASS PILLOW	4780	4/01/94	---	31.1S	26.0	38.0
THUNDER BASIN	4200	3/28/94	56	20.0	15.0	34.7
THUNDER BASIN PILLOW	4200	4/01/94	---	27.0S	19.3	--
BAKER RIVER						
DOCK BUTTE AM	3800	3/30/94	100	41.0	40.8	65.4
EASY PASS AM	5200	3/30/94	162	68.0	46.1	82.9
JASPER PASS AM	5400	3/30/94	154	61.6	55.1	86.0
MARTEN LAKE AM	3600	3/30/94	135	54.0	45.9	73.4
MT. BLUM AM	5800	3/30/94	126	50.4	46.0	63.1
ROCKY CREEK AM	2100	3/30/94	36	14.4	26.7	27.8
SCHREIBERS MDW AM	3400	3/30/94	96	39.4	30.3	58.8
SF THUNDER CK AM	2200	3/30/94	0	.0	.0	4.9
WATSON LAKES AM	4500	3/30/94	120	48.0	40.5	64.9
ELWHA RIVER						
HURRICANE	4500	3/29/94	42	14.8	8.2	22.1
HORSE CREEK						
COX VALLEY	4500	3/28/94	83	32.0	20.7	39.5
DUNGENESS RIVER						
DEER PARK	5200	3/30/94	33	13.0	8.7	20.9
QUILCENE RIVER						
MOUNT CRAG PILLOW	4050	4/01/94	---	27.0S	20.0	31.5
WYNOOCHEE RIVER						

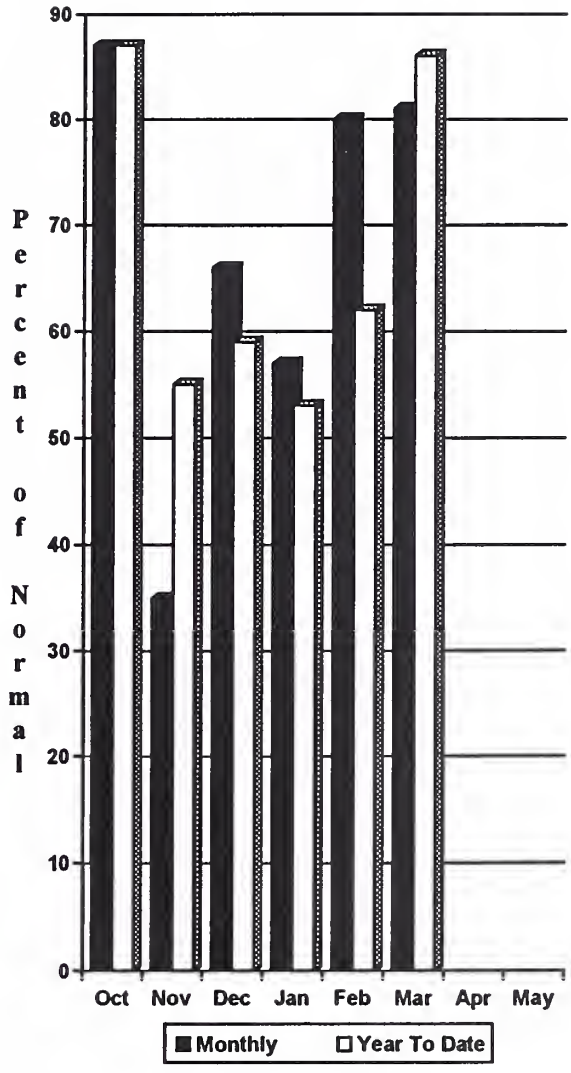
(d) Denotes discontinued site.

Spokane River Basin

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

The April 1 forecasts for summer runoff within the Spokane River Basin are 51% of normal, down from 66% last month. The forecast is based on a snowpack that is 62% of average and precipitation that is 63% of normal for the water year. Precipitation for March was 81% of average. Streamflow in the Spokane River was 59% of average for March. April 1 storage in Coeur d'Alene Lake was 105,500 acre feet, 62% of normal, and 44% of capacity. Temperatures in the basin were three degrees above normal during March.

For more information contact your local Soil Conservation Service office.

SPOKANE RIVER BASIN
Streamflow Forecasts - April 1, 1994

Forecast Point	Forecast Period	<<------ Drier ------ Future Conditions ------ Wetter ------>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SPOKANE near Post Falls	APR-SEP	950	1220	1400	51	1580	1850	2730
	APR-JUL	910	1170	1350	51	1530	1840	2633
SPOKANE at Long Lake	APR-JUL	1120	1410	1610	55	1810	2100	2936
	APR-SEP	1260	1560	1760	56	1960	2260	3159

SPOKANE RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
COEUR D'ALENE	238.5	105.5	225.5	170.1

SPOKANE RIVER BASIN
Watershed Snowpack Analysis - April 1, 1994

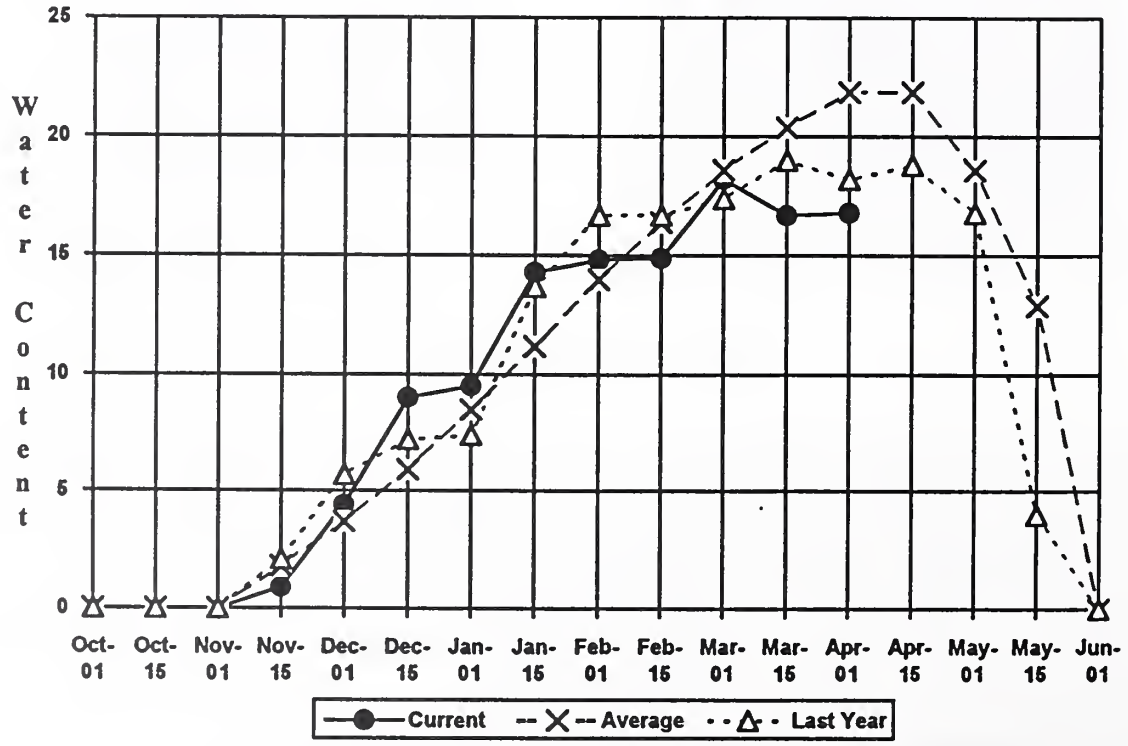
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Spokane River	21	77	60

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

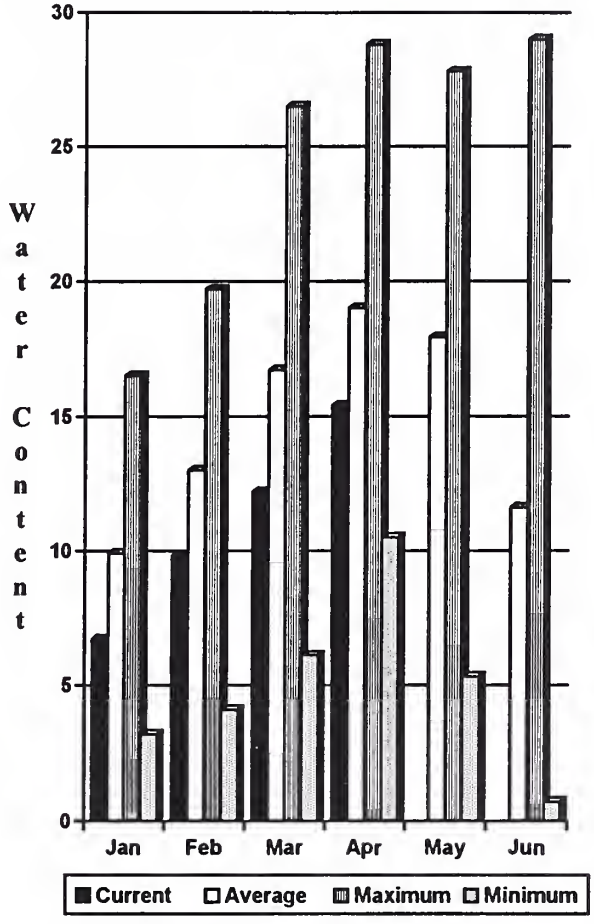
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Quartz Peak SNOTEL

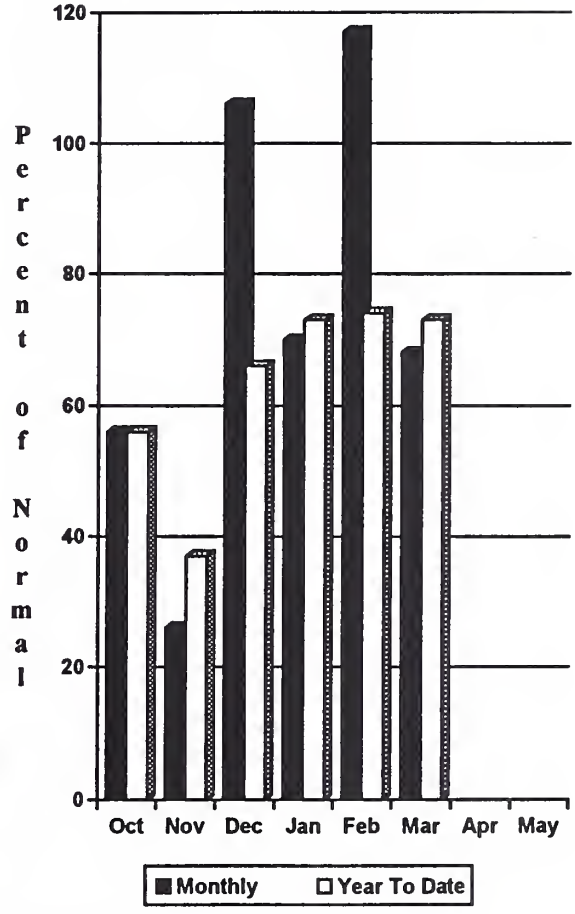


Colville - Pend Oreille River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

The forecast for the Kettle River streamflow is for 81% of normal; the Pend Oreille, 59%, and the Colville River, 70% of normal for the summer runoff period. Forecast for the Columbia River at Birchbank is for runoff to be 91% of average. March streamflow was 76% of normal in the Pend Oreille River, 96% in the Columbia at the International Boundary, and 104% in the Kettle River. April 1 snow cover was 68% of normal in the Pend Oreille Basin, and 81% in the Colville River. Snowpack at Bunchgrass Meadow SNOTEL site contained 21.3 inches of water, the average April 1 reading is 26.6 inches. Precipitation during March was 68% of average, bringing the water year-to-date to 73% of normal. Temperatures were three degrees above normal for March.

For more information contact your local Soil Conservation Service office.

COLVILLE - PEND OREILLE RIVER BASINS

Streamflow Forecasts - April 1, 1994

Forecast Point	Forecast Period	<<------ Drier ------ Future Conditions ------- Wetter ------>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
PEND OREILLE Lake Inflow (1,2)	APR-JUL	5110	6930	7760	59	8590	10400	13150
	APR-SEP	5600	6890	7800	54	8710	11400	14370
	APR-JUN	4220	5940	6720	59	7500	9220	11390
PRIEST nr Priest River (1,2)	APR-JUL	345	490	553	68	620	760	814
	APR-SEP	370	520	590	68	660	810	868
PEND OREILLE bl Box Canyon (1,2)	APR-JUL	5220	7140	7900	59	8660	10700	13380
	APR-SEP	5690	7790	8620	59	9450	11700	14590
	APR-JUN	4740	6180	6830	59	7480	8920	11570
CHAMOKANE CK nr Long Lake	MAY-AUG	0.1	2.3	4.3	46	6.3	9.3	9.4
COLVILLE at Kettle Falls	APR-SEP	44	73	92	70	111	140	131
	APR-JUL	44	68	84	70	100	124	120
	APR-JUN	44	65	80	72	95	116	111
KETTLE near Laurier	APR-SEP	1210	1380	1500	81	1620	1790	1854
	APR-JUL	935	1320	1420	81	1520	1900	1761
	APR-JUN	1100	1230	1320	83	1410	1540	1585
COLUMBIA at Birchbank (1,2)	APR-JUL	28800	31700	33000	94	34300	37200	35140
	APR-SEP	35800	39500	41100	94	42700	46400	43810
	APR-JUN	21100	23200	24100	94	25000	27100	25670
COLUMBIA at Grand Coulee Dm (1,2)	APR-SEP	44900	50700	53400	82	56100	61900	64850
	APR-JUL	37900	42900	45100	83	47300	52300	54543
	APR-JUN	29900	33800	35500	83	37200	41100	42756

COLVILLE - PEND OREILLE RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ROOSEVELT	5232.0	3644.2	2916.3	1586.0
BANKS	715.0	665.5	673.8	583.0

COLVILLE - PEND OREILLE RIVER BASINS
Watershed Snowpack Analysis - April 1, 1994

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Colville River	2	71	76
Pend Oreille River	111	98	68
Kettle River	11	96	82

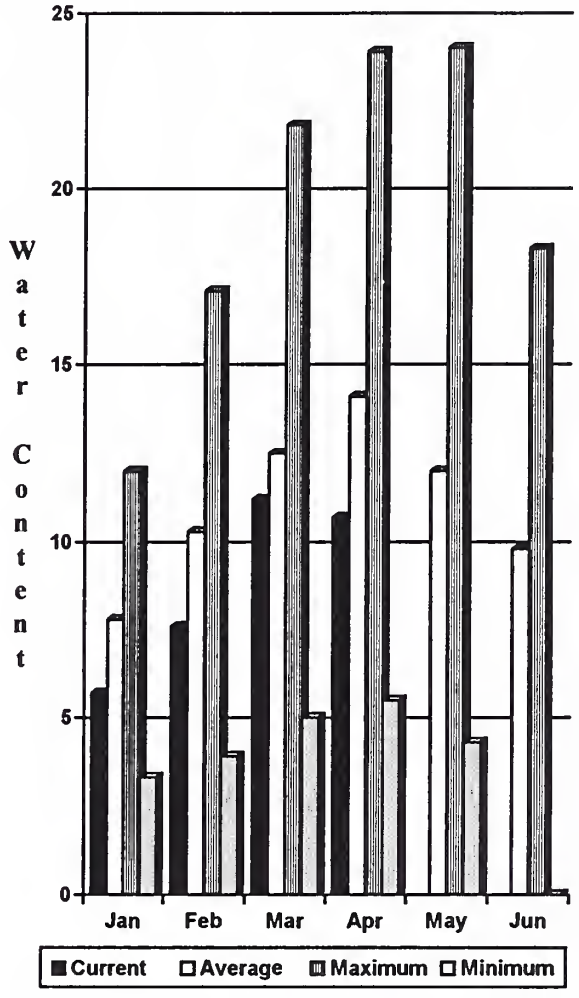
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

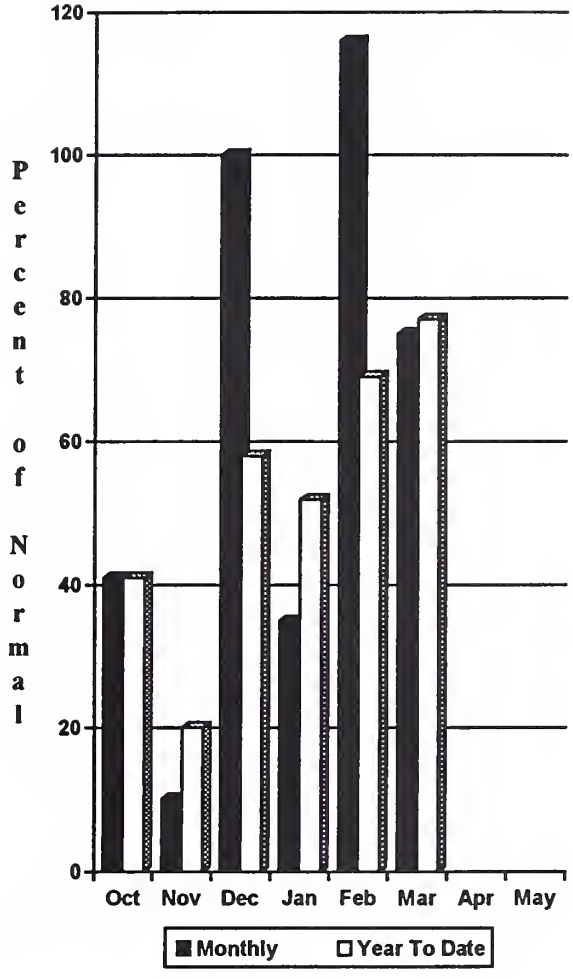
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Okanogan - Methow River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

Summer runoff forecast for the Okanogan River is for 67% of normal; the Similkameen River, 57%, and the Methow River, 71% of normal. A new forecast point on Salmon Creek near Conconully was 70% of average. April 1 snow cover in the Okanogan was 76% of normal, the Smilkameen 62%, and the Methow 74%. March precipitation in the Okanogan - Methow was 75% of normal, with water year-to-date at 77% of average. March streamflow in the Methow River was 54% of normal, 115% in the Similkameen, and 127% in the Okanogan River. Snow water content at the Harts Pass SNOTEL, elevation 6500 feet, was 30.3 inches; normal for this site is 41.4 inches. Temperatures were five degrees above normal for March. Storage in the Conconully Reservoir was 18,600 acre feet, which is 74% of capacity and 137% of the April 1 average.

For more information contact your local Soil Conservation Service office.

OKANOGAN - METHOW RIVER BASINS

Streamflow Forecasts - April 1, 1994

Forecast Point	Forecast Period	<<------ Drier ------ Future Conditions ------ Wetter ------>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SIMILKAMEEN nr Nighthawk (1)	APR-SEP	435	705	800	57	895	1160	1399
	APR-JUL	475	665	755	58	845	1040	1304
	APR-JUN	410	595	680	61	765	950	1113
OKANOGAN RIVER nr Tonasket (1)	APR-SEP	520	895	1080	67	1260	1640	1624
	APR-JUL	515	870	1030	70	1190	1550	1467
	APR-JUN	495	765	890	72	1010	1290	1234
SALMON CREEK nr Conconully	APR-JUL	1.7	8.7	13.4	70	18.1	25	19.1
	APR-SEP	1.7	9.0	14.0	70	19.0	26	20
METHOW RIVER nr Pateros (1)	APR-SEP	420	590	665	71	740	910	942
	APR-JUL	385	545	615	70	685	845	873
	APR-JUN	325	465	530	71	595	735	746

OKANOGAN - METHOW RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CONCONULLY LAKE (SALMON)	10.5	9.0	7.4	8.0
CONCONULLY RESERVOIR	13.0	9.6	6.0	7.0

OKANOGAN - METHOW RIVER BASINS
Watershed Snowpack Analysis - April 1, 1994

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Okanogan River	28	95	76
Methow River	4	104	74

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

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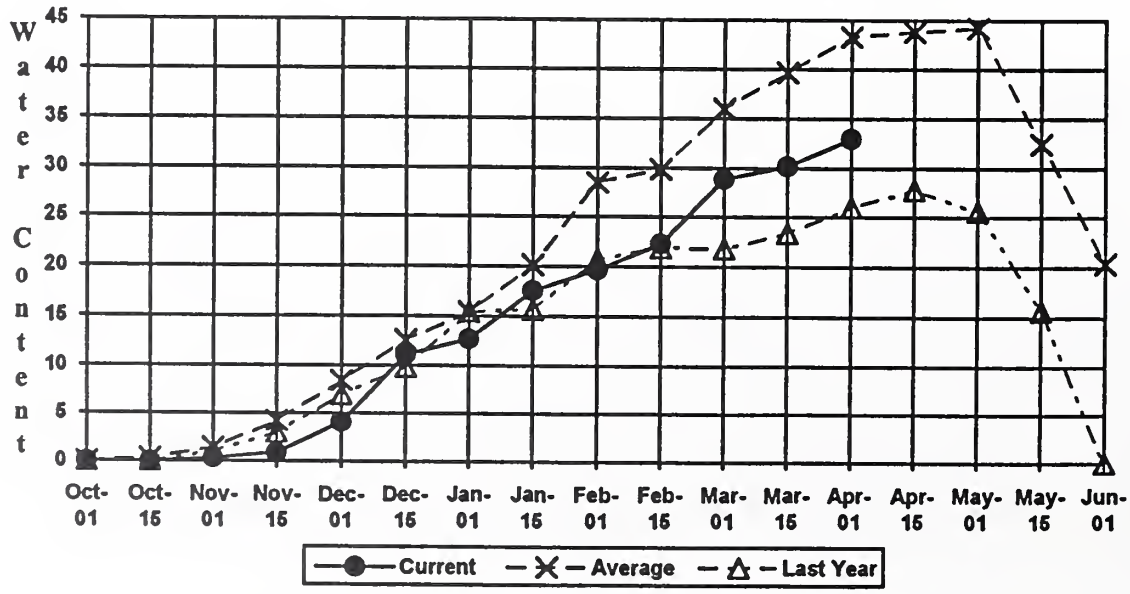
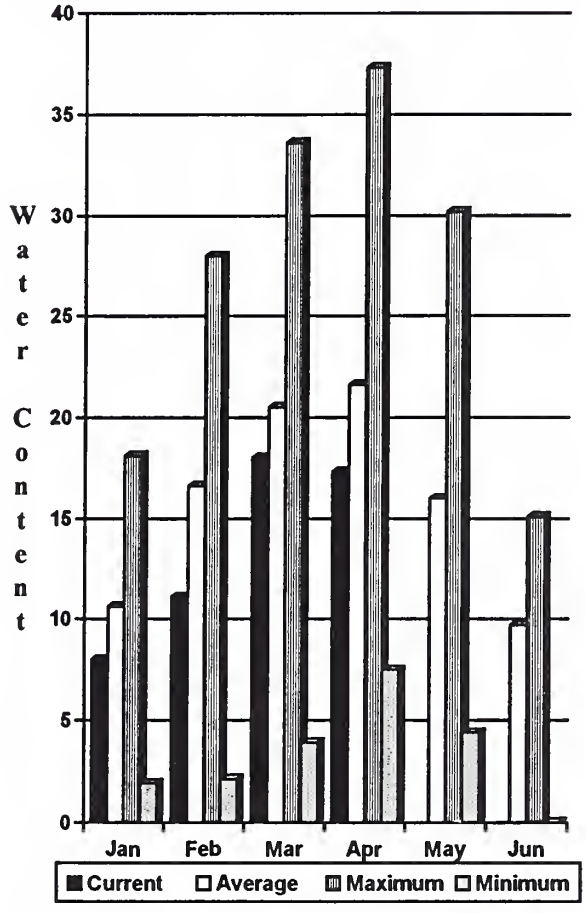
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Rainy Pass SNOTEL

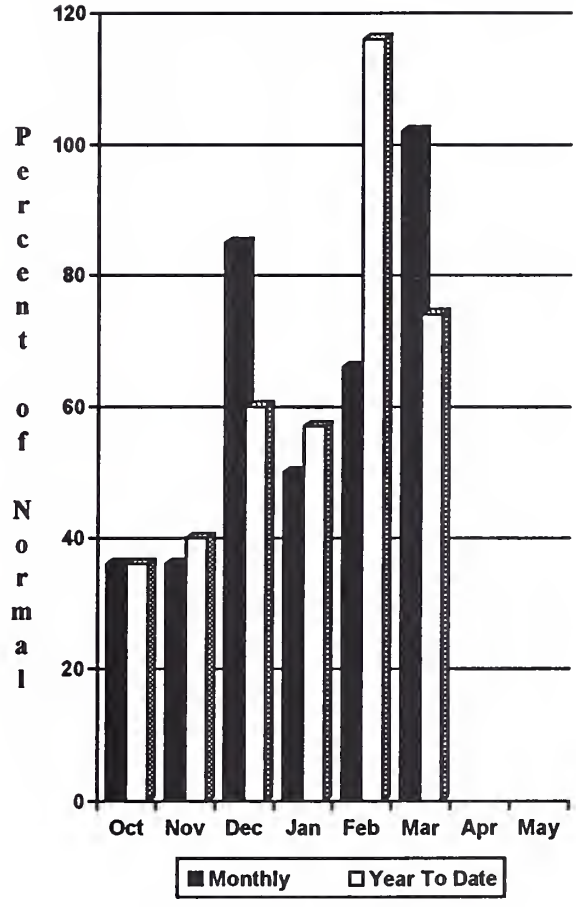


Wenatchee - Chelan River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

The summer forecast for the Chelan River is for 73% of normal, for the Wenatchee River it is 67%, and 80% for the Squilchuck-Stemilt. Icicle Creek can expect below normal runoff this summer. Streamflow for March on the Chelan River was 110% of average and on the Wenatchee River it was 100% of normal. April 1 snowpack in the Wenatchee Basin was 84% of average. The Chelan Basin had 75% of the April 1 average. Snowpack along Colockum Ridge and Stemilt Creek was at 72% of normal. Snowpack in the Entiat River was at 67% of average. Precipitation during March was 102% of normal in the basin and 74% for the year-to-date. Runoff for the Entiat River is forecast to be 75% of normal for the summer. Reservoir storage in Lake Chelan was 109,400 acre feet or 52% of April 1 average and 16% of capacity. Lyman Lake SNOTEL had the most snow water with 45.8 inches of water. This site would normally have 56.9 inches.

For more information contact your local Soil Conservation Service office.

WENATCHEE - CHELAN RIVER BASINS

Streamflow Forecasts - April 1, 1994

Forecast Point	Forecast Period	<<------ Drier ------ Future Conditions ------- Wetter ------>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
CHELAN RIVER at Chelan (1)	APR-SEP	640	795	845	73	895	1060	1160
	APR-JUL	635	735	780	76	825	925	1024
	APR-JUN	430	560	620	76	680	810	812
STEHEKIN R. at Stehekin	APR-SEP	530	585	620	75	655	710	827
	APR-JUL	470	515	548	78	580	625	701
	APR-JUN	360	395	420	78	445	480	538
ENTIAT RIVER nr Ardenvoir	APR-SEP	128	153	170	75	187	210	227
	APR-JUL	117	140	156	76	172	195	206
	APR-JUN	98	116	128	76	140	159	169
WENATCHEE R. at Peshastin	APR-SEP	555	880	1090	67	1300	1620	1636
	APR-JUL	545	820	1010	68	1200	1480	1485
	APR-JUN	455	680	830	69	980	1200	1204
STEMILT nr Wenatchee (miners in)	MAY-SEP	66	92	110	80	128	154	138
ICICLE CREEK nr Leavenworth	APR-SEP	193	265	310	84	360	430	370
	APR-JUL	177	240	285	84	330	395	340
	APR-JUN	144	195	230	85	265	315	270
COLUMBIA R. bl Rock Island Dam (2)	APR-SEP	48500	54000	57800	82	61600	67100	70485
	APR-JUL	41200	45900	49100	82	52300	57000	59736
	APR-JUN	32300	36000	38500	82	41000	44700	47007

WENATCHEE - CHELAN RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CHELAN LAKE	676.1	109.4	143.6	212.1

WENATCHEE - CHELAN RIVER BASINS
Watershed Snowpack Analysis - April 1, 1994

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Chelan Lake Basin	4	118	75
Entiat River	2	73	67
Wenatchee River	13	126	84
Squilchuck Creek	0	0	0
Stemilt Creek	2	77	72
Colockum Creek	1	88	72

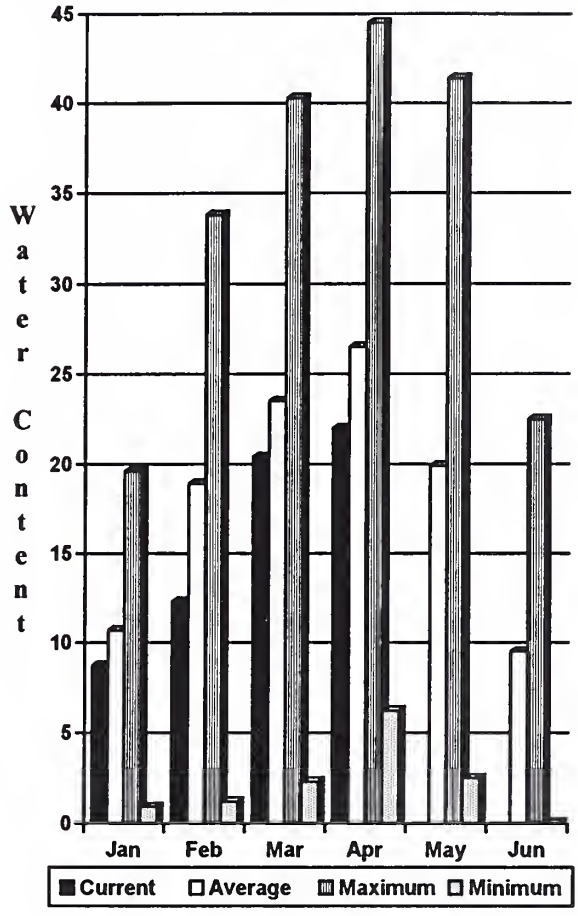
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

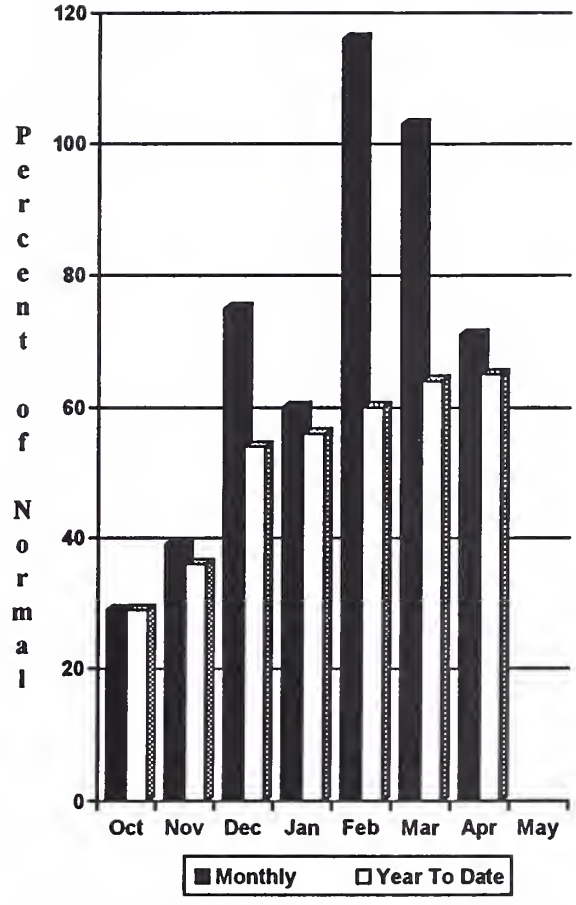
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Yakima River Basin

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

April 1 reservoir storage for the five major reservoirs was 297,200 acre feet, 40% of average. April 1 summer streamflow forecasts are for below normal in the Yakima Basin. Forecasts for the Yakima River at Cle Elum are for 81% of normal; Naches River, 72%; the Yakima River at Parker, 71%; Ahtanum Creek, 67%; and the Tieton River, 80%. A new forecast point for the Klickitat River near Glenwood was 63% of normal. March streamflows were very low, with the Yakima River at Parker 75% of normal, 112% for the Yakima near Cle Elum, and 75% for the Naches River. April 1 snowpack was 83% based upon 20 snow courses and SNOTEL readings. March precipitation was 71% of normal and 65% for the water year-to-date. Temperatures were one degree above average for March. Volume forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U. S. Bureau of Reclamation's forecast for the total water supply available which includes irrigation return flow.

For more information contact your local Soil Conservation Service office.

YAKIMA RIVER BASIN

Streamflow Forecasts - April 1, 1994

Forecast Point	Forecast Period	<<------ Drier ------ Future Conditions ------- Wetter ------>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KEECHELUS LAKE INFLOW	APR-JUL	82	92	99	80	106	116	124
	APR-SEP	85	97	105	78	113	125	135
	APR-JUN	73	84	91	83	98	109	109
KACHESS LAKE INFLOW	APR-JUL	75	83	88	79	93	101	111
	APR-SEP	75	84	90	76	96	105	118
	APR-JUN	69	78	84	85	90	99	99
CLE ELUM LAKE INFLOW	APR-JUL	295	315	330	81	345	365	409
	APR-SEP	295	330	345	77	360	395	448
	APR-JUN	255	280	295	86	310	335	345
YAKIMA at Cle Elum	APR-JUN	475	525	555	77	585	635	721
	APR-JUL	545	585	615	74	645	685	832
	APR-SEP	610	660	690	75	720	770	915
BUMPING LAKE INFLOW	APR-SEP	94	102	107	79	112	121	136
	APR-JUL	91	98	103	83	108	116	124
	APR-JUN	72	81	87	84	93	103	104
AMERICAN RIVER near Nile	APR-SEP	86	93	98	83	103	111	118
	APR-JUL	79	86	91	83	96	103	109
	APR-JUN	65	73	79	86	85	94	92
RIMROCK LAKE INFLOW	APR-SEP	164	179	190	80	200	215	238
	APR-JUL	146	157	164	82	172	183	200
	APR-JUN	114	126	135	83	144	157	162
NACHES near Naches	APR-SEP	525	570	600	72	630	675	832
	APR-JUL	490	530	560	74	590	630	755
	APR-JUN	420	465	495	76	525	575	651
AHTANUM CREEK nr Tampico (2)	APR-SEP	13.0	24	31	67	38	48	46
	APR-JUL	15.0	24	30	71	36	45	42
	APR-JUN	13.0	21	26	72	31	39	36
YAKIMA near Parker	APR-SEP	1240	1340	1410	71	1480	1580	1994
	APR-JUL	1110	1200	1260	70	1320	1410	1805
	APR-JUN	1010	1110	1170	73	1230	1330	1597
KLICKITAT near Glenwood	APR-JUN	59	68	74	67	80	89	110
	APR-SEP	66	79	88	63	97	110	141

YAKIMA RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
KEECHELUS	157.8	65.4	68.4	110.0
KACHESS	239.0	69.8	82.5	187.0
CLE ELUM	436.9	87.0	118.1	290.0
BUMPING LAKE	33.7	13.8	11.4	11.0
RIMROCK	198.0	61.2	78.0	142.0

YAKIMA RIVER BASIN
Watershed Snowpack Analysis - April 1, 1994

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Yakima River	21	112	83
Ahtanum Creek	3	84	84

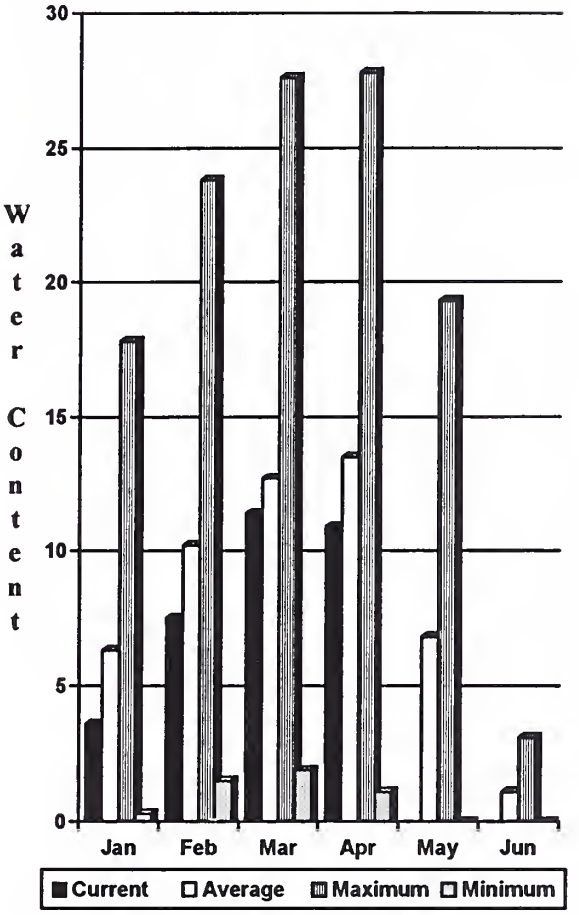
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

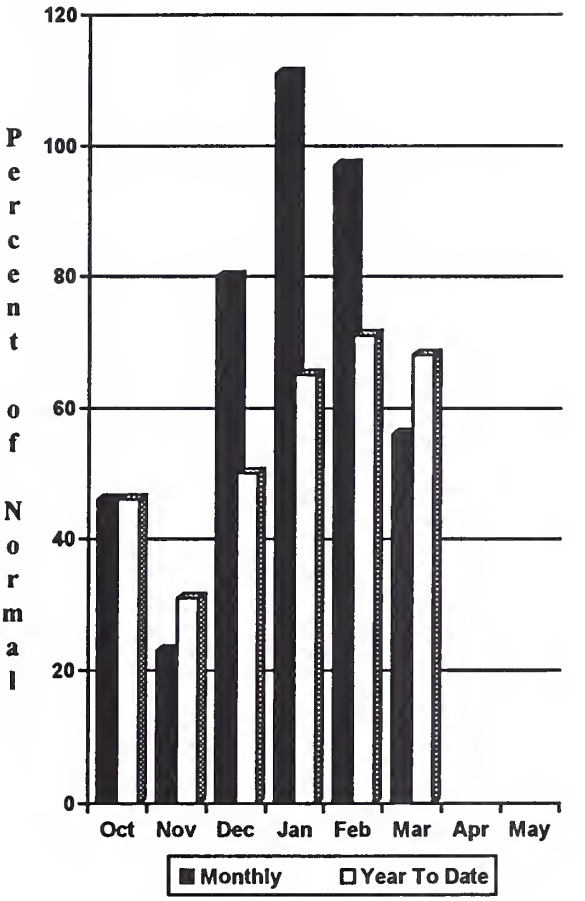
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Walla Walla River Basin

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

April 1 snowpack was at 81% of normal. The forecast for the coming summer is for 71% of average streamflow in the Walla Walla River for 59% in the Grande Ronde; the Snake River, 53%; and 84% in Mill Creek. March streamflow was 159% of normal in the Walla Walla River, 60% for the Snake River, and 93% on the Grande Ronde River near Troy. March precipitation was 56% of average, bringing the year-to-date precipitation to 68% of normal. The Touchet SNOTEL site had 25 inches of water equivalent. The normal April 1 reading for this site is 31.9 inches. Temperatures were two degrees above average for March.

For more information contact your local Soil Conservation Service office.

WALLA WALLA RIVER BASIN

Streamflow Forecasts - April 1, 1994

Forecast Point	Forecast Period	<<------ Drier ------ Future Conditions ------- Wetter ------>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
GRANDE RONDE at Troy (1)	APR-JUL	370	605	710	58	815	1050	1214
	APR-SEP	400	655	770	59	885	1140	1312
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	6580	9960	11500	53	13000	16200	21650
	APR-SEP	7380	11200	12910	53	14600	18400	24360
MILL CREEK at Walla Walla	APR-SEP	8.4	12.0	14.4	84	16.8	20	17.1
	APR-JUL	8.2	11.8	14.2	84	16.6	20	16.9
	APR-JUN	8.3	11.8	14.2	85	16.6	20	16.7
SF WALLA WALLA nr Milton Freewater	APR-JUL	31	36	39	74	42	47	53
COLUMBIA R. at The Dalles (2)	APR-SEP	56400	64300	69700	70	75200	83100	98982
	APR-JUL	48700	55400	59900	71	64400	71100	84760
	APR-JUN	39800	45200	48900	71	52600	58000	68925

WALLA WALLA RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

WALLA WALLA RIVER BASIN
Watershed Snowpack Analysis - April 1, 1994

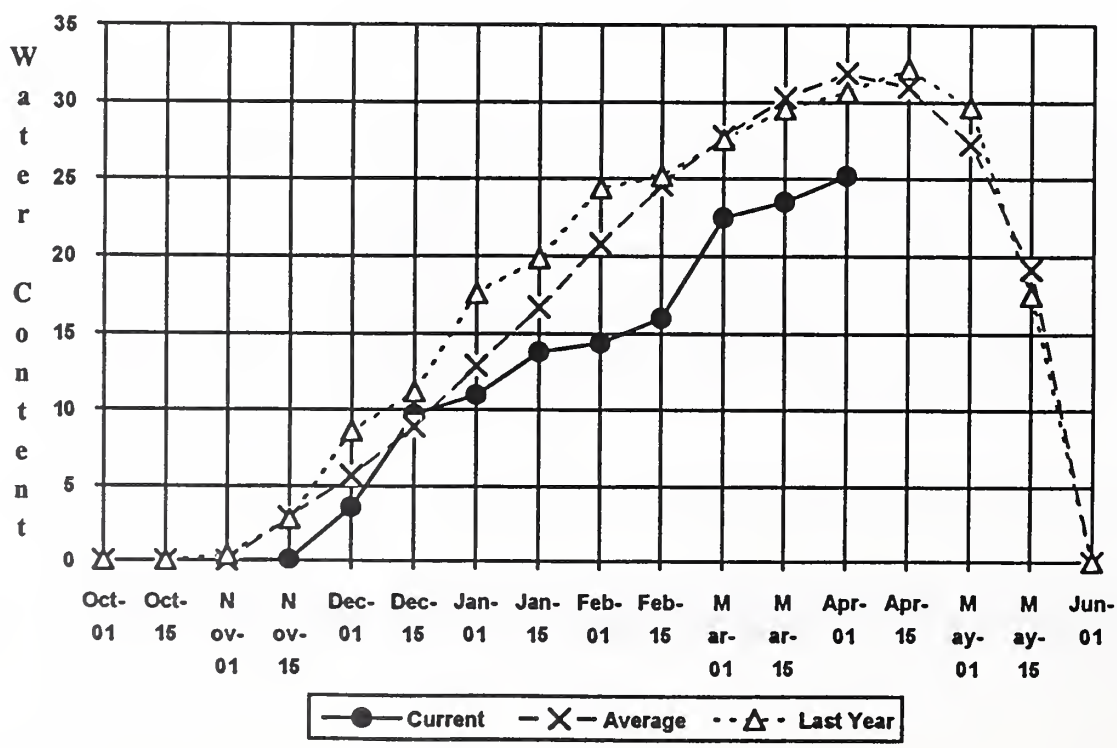
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mill Creek	2	83	81

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

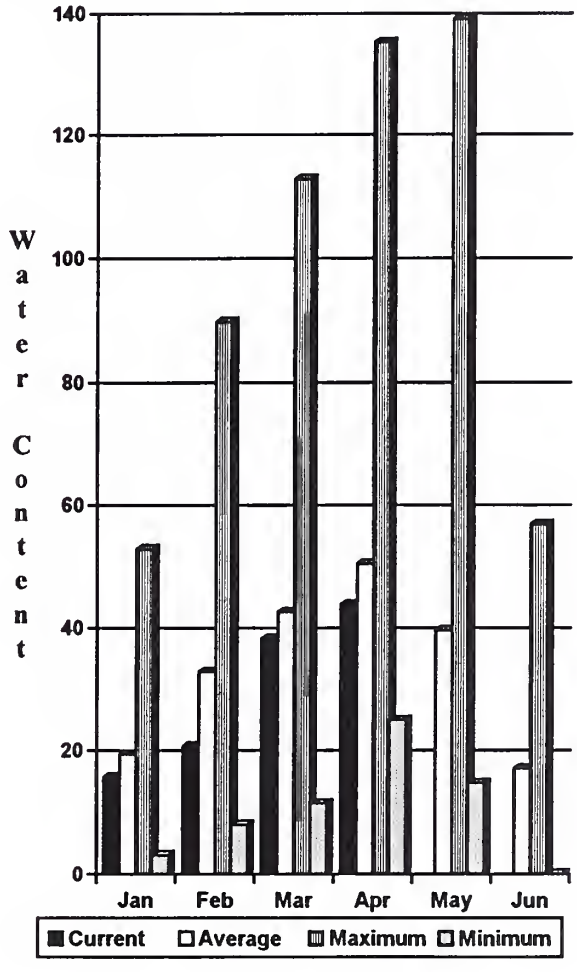
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Touchet #2 SNOTEL

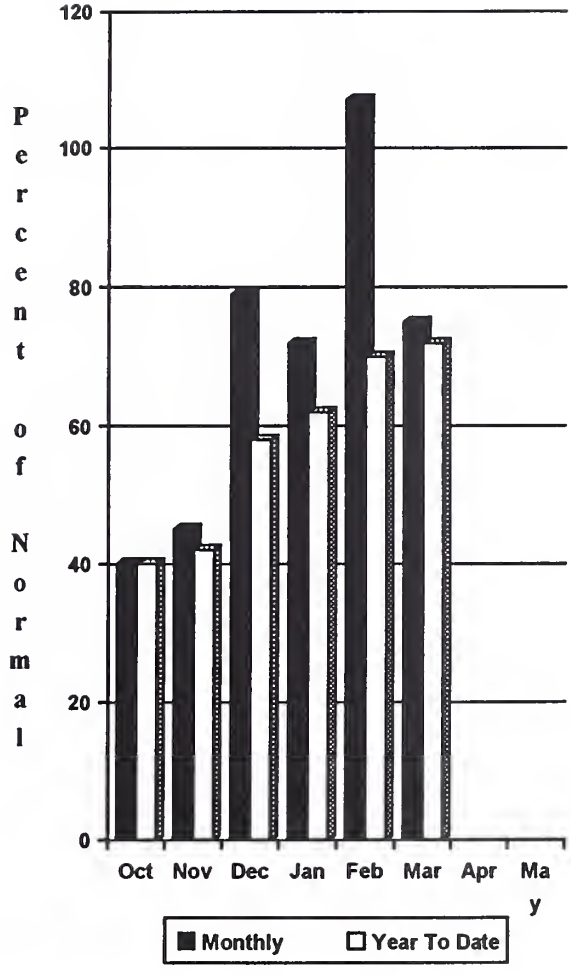


Cowlitz - Lewis River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

March precipitation was 75% of normal. It brought the precipitation to 72% of average for the water year. April 1 snow cover for the Cowlitz River was 86%, and for the Lewis River it was 90%. The forecast for summer runoff in the Lewis River is 74% of normal. The Cowlitz River, is forecasted for 58% of normal runoff. March streamflow in the Cowlitz River was 115% of average, and 84% in the Lewis River. The Paradise Park SNOTEL contained the most water content for the basin with 57.7 inches of water. Normal April 1 water content is 62.1 inches. Temperatures were three degrees above normal for March.

For more information contact your local Soil Conservation Service office.

COWLITZ - LEWIS RIVER BASINS

Streamflow Forecasts - April 1, 1994

Forecast Point	Forecast Period	<<------- Drier ------ Future Conditions ------- Wetter ------>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
LEWIS RIVER at Ariel (2)	APR-SEP	495	755	890	74	1020	1300	1204
	APR-JUL	530	700	820	78	940	1110	1051
	APR-JUN	485	635	740	79	845	995	933
COWLITZ R. bl Mayfield Dam (2)	APR-SEP	275	830	1150	58	1470	2010	1970
	APR-JUL	310	720	1000	58	1280	1690	1731
	APR-JUN	300	650	890	60	1130	1480	1477
COWLITZ R. at Castle Rock (2)	APR-SEP	345	1150	1540	58	1930	2750	2667
	APR-JUL	515	1010	1350	58	1690	2190	2325
	APR-JUN	480	910	1200	60	1490	1920	1995
KLICKITAT near Pitt	APR-JUN	59	68	74	67	80	89	110
	APR-SEP	66	79	88	63	97	110	141

COWLITZ - LEWIS RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

COWLITZ - LEWIS RIVER BASINS
Watershed Snowpack Analysis - April 1, 1994

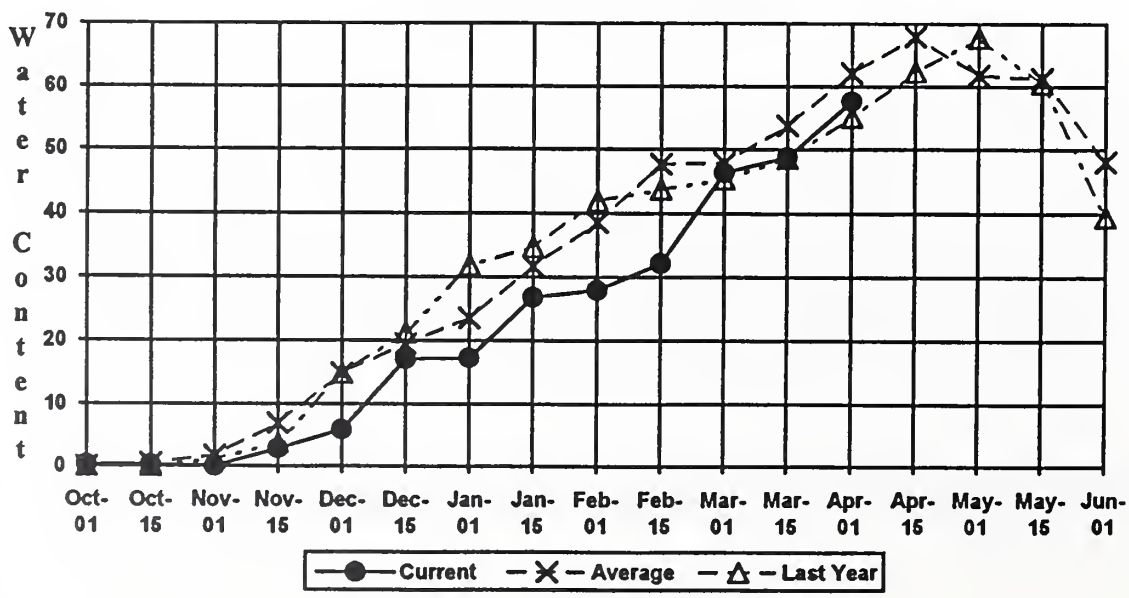
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Cowlitz River	7	110	86
Lewis River	4	109	90

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

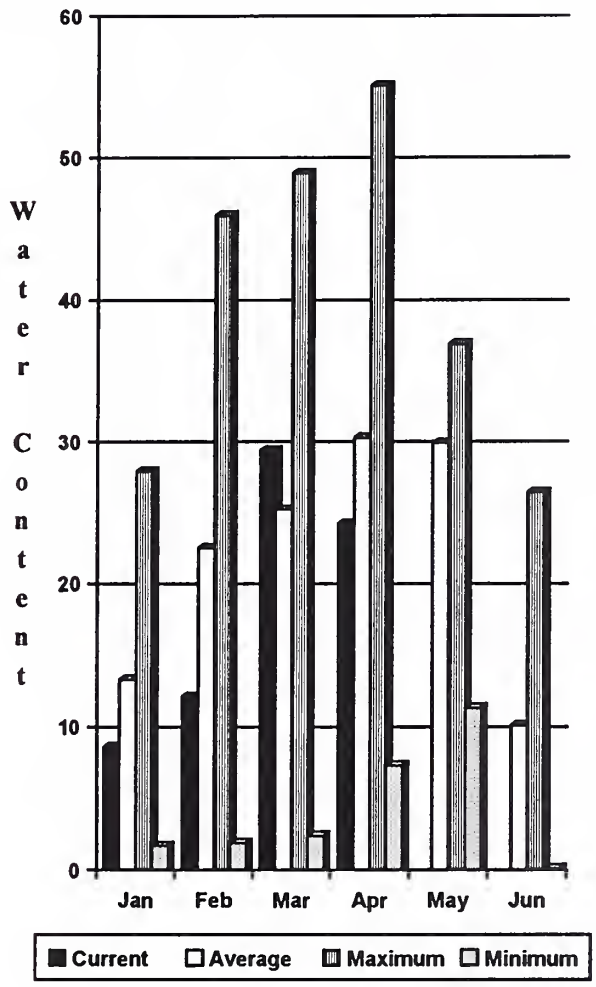
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

PARADISE SNOTEL

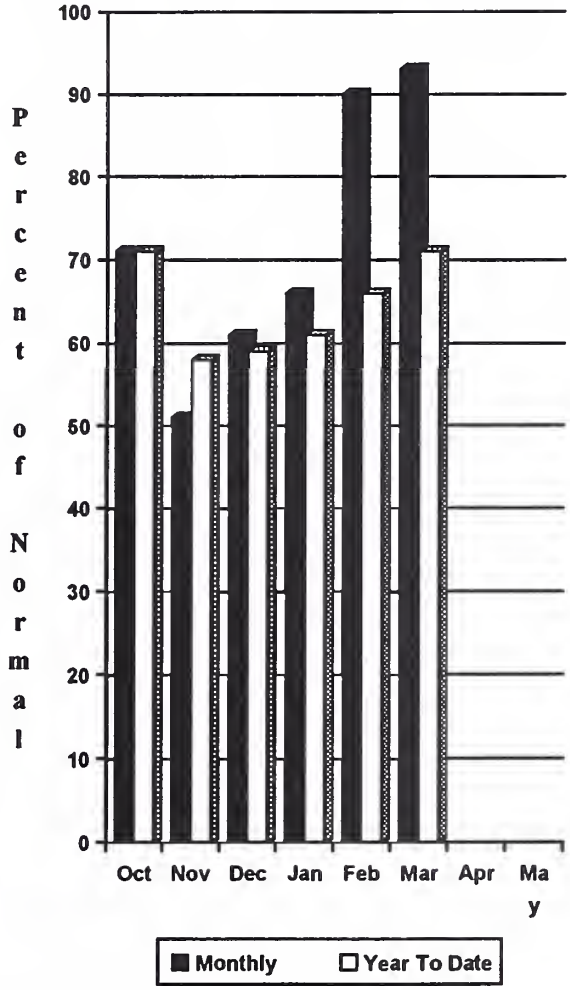


White - Green River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

March precipitation was 93% of normal, It brought the water year-to-date to 71% of average. Summer runoff is forecasted to be 90% of normal for the Green River and 82% for the Cedar River, 83% for the Rex River; 84% for the South Fork of the Tolt River and for the Cedar River at Cedar 77%. April 1 snowpack was 88% of normal in the White River Basin and 70% in the Green River Basin. Water content on April 1 at the Stampede Pass SNOTEL, at an elevation of 3860 feet, was 36.5 inches. This site has a April 1 average of 44.4 inches. Temperatures were three degrees above average for March.

For more information contact your local Soil Conservation Service office.

WHITE - GREEN RIVER BASINS

Streamflow Forecasts - April 1, 1994

Forecast Point	Forecast Period	<<------ Drier ------ Future Conditions ------- Wetter ------>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
GREEN RIVER below Howard Hanson Dam	APR-JUL	180	210	230	89	250	280	257
	APR-SEP	205	235	256	90	275	305	285
	APR-JUN	164	191	210	90	230	255	234
CEDAR RIVER near Cedar Falls	APR-JUL	49	57	63	82	69	77	77
	APR-SEP	55	64	70	82	76	85	85
	APR-JUN	45	53	58	85	63	71	68
REX RIVER near Cedar Falls	APR-JUL	16.0	20	22	81	25	28	27
	APR-SEP	19.0	23	25	83	27	31	30
	APR-JUN	16.0	19.0	22	86	24	27	25
CEDAR RIVER at Cedar Falls	APR-JUL	44	56	65	79	74	86	82
	APR-SEP	45	56	64	77	72	83	83
	APR-JUN	43	56	64	80	73	85	80
SOUTH FORK TOLT near Index	APR-JUL	10.5	11.9	12.9	85	13.9	15.3	15.2
	APR-SEP	11.9	13.8	15.0	84	16.2	18.1	17.8
	APR-JUN	8.7	10.3	11.3	86	12.3	13.9	13.1

WHITE - GREEN RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

WHITE - GREEN RIVER BASINS
Watershed Snowpack Analysis - April 1, 1994

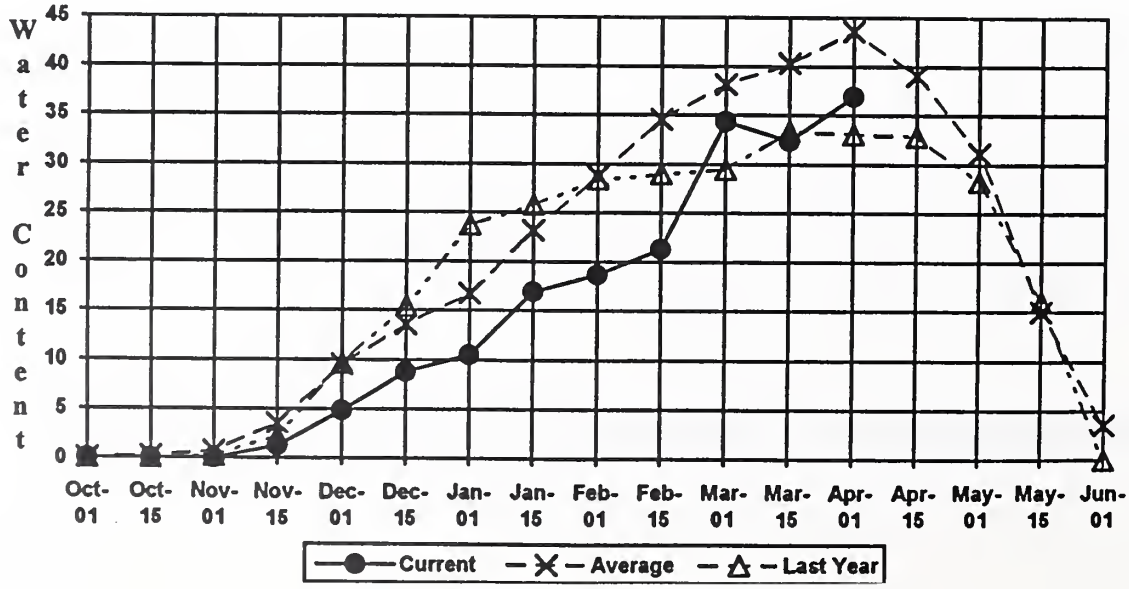
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
White River	3	111	88
Green River	6	115	69
Cedar River	2	56	25

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

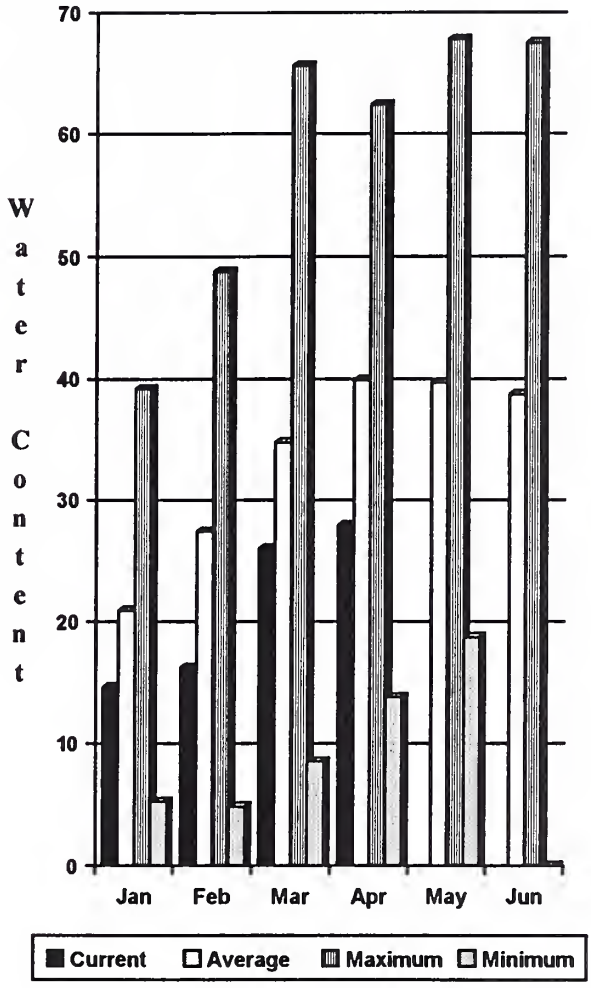
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Stampede Pass SNOTEL

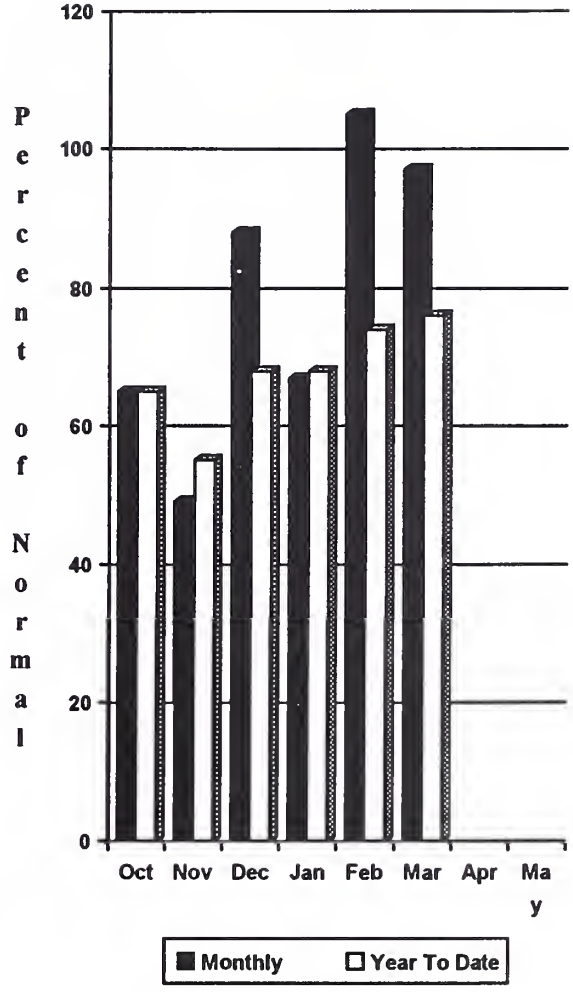


North Puget Sound River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

April 1 snow cover in the Skagit River was 68% of normal, and in the Baker River it was 71% of average. Forecast for the Skagit River streamflow is for 82% of normal for the spring and summer period. March streamflow in the Skagit River was 154% of average. Other summer forecasts include the Baker River at 89% of average and Thunder Creek at 87%. Precipitation for March was 97% of average with a water year-to-date at 76% of normal. Rainy Pass SNOTEL, at 4780 feet, had 31.1 inches of water content. Normal April 1 water content is 38 inches. April 1 reservoir storage was above average, with Ross Lake at 264% normal and 56% of capacity. March temperatures were three degrees above normal.

For more information contact your local Soil Conservation Service office.

NORTH PUGET SOUND RIVER BASINS

Streamflow Forecasts - April 1, 1994

Forecast Point	Forecast Period	<<------ Drier ------ Future Conditions ------ Wetter ------>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
THUNDER CREEK near Newhalem	APR-JUL	174	189	200	87	210	225	230
	APR-SEP	260	275	285	87	295	310	328
	APR-JUN	108	124	134	90	145	160	149
SKAGIT RIVER at Newhalem (2)	APR-SEP	1430	1640	1790	82	1940	2150	2185
	APR-JUL	1200	1380	1500	82	1620	1800	1830
	APR-JUN	955	1090	1185	84	1280	1410	1410
BAKER RIVER near Concrete	APR-JUL	650	710	750	90	790	850	836
	APR-SEP	825	895	947	89	995	1070	1064
	APR-JUN	460	520	560	92	600	660	611

NORTH PUGET SOUND RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ROSS	1404.1	786.0	611.5	298.0
DIABLO RESERVOIR	90.6	85.3	86.8	---
GORGE RESERVOIR	9.8	8.1	8.2	---

NORTH PUGET SOUND RIVER BASINS
Watershed Snowpack Analysis - April 1, 1994

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Snohomish River	9	122	68
Skagit River	13	110	68
Baker River	9	114	71

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

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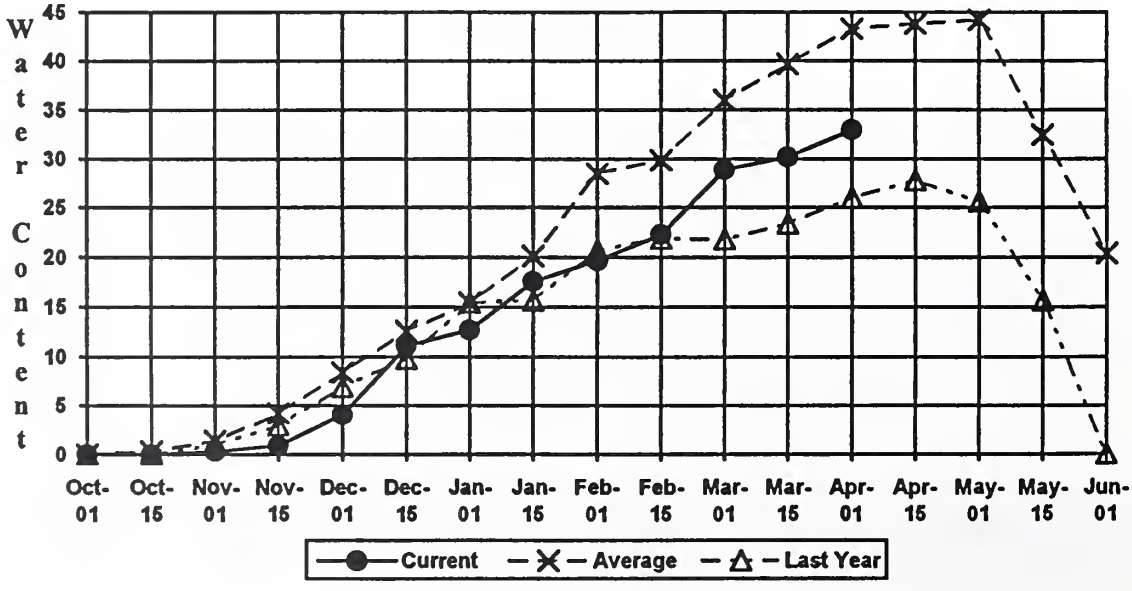
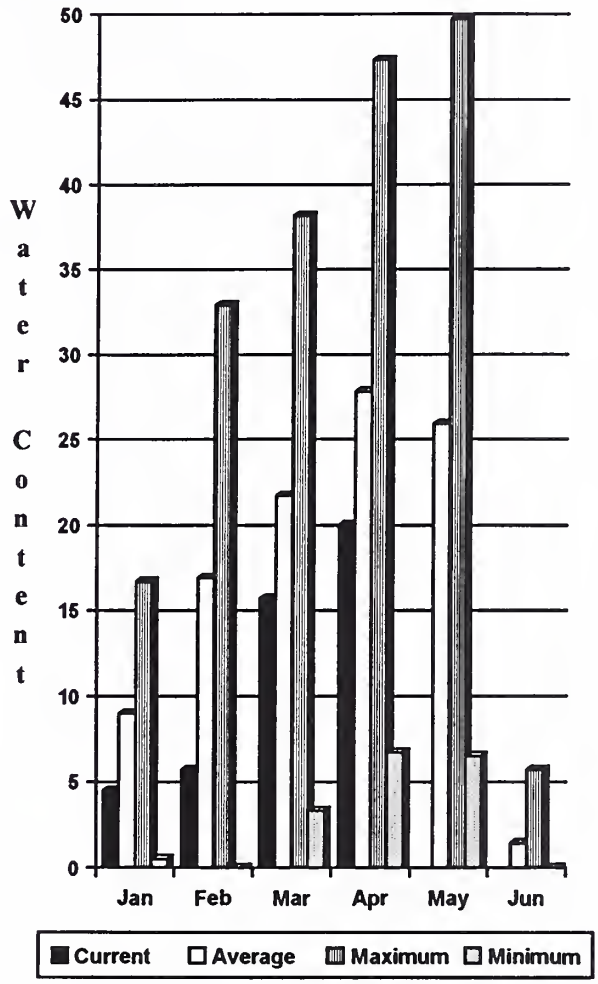
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Rainy Pass SNOTEL

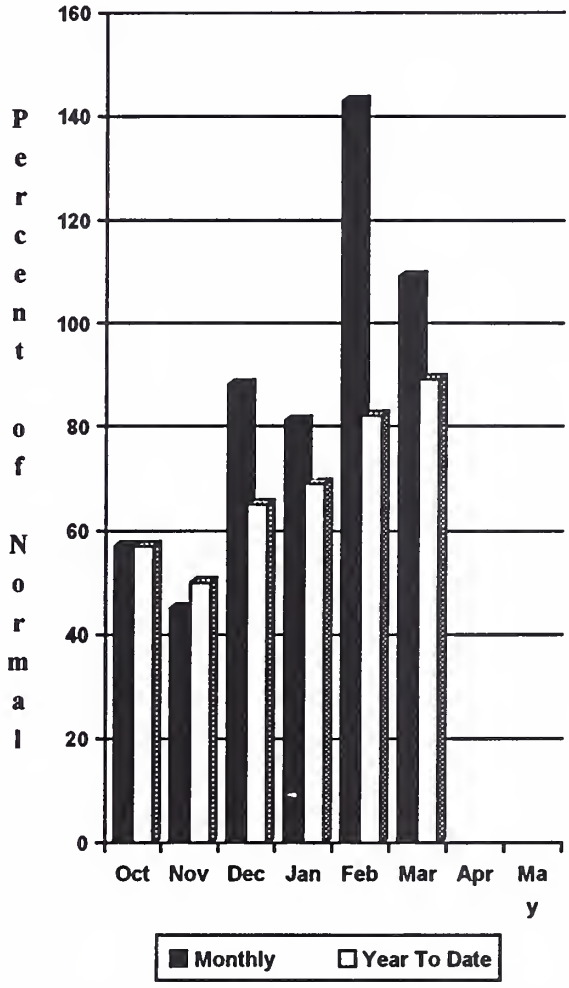


Olympic Peninsula River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

March precipitation was 109% of average. Precipitation has accumulated at 89% of normal for the water year. March precipitation at Quillayute was 12.04 inches. April 1 snow cover in the Olympic Basin was below normal at 72%. April forecasts for streamflow in the basin are for 73% of average for the Dungeness River and 80% for the Elwha River. The Big Quilcene can expect near normal runoff this summer. The Mount Crag SNOTEL near Quilcene had 27 inches of snow water content on April 1. Normal April 1 water content is 31.5 inches. Temperatures were two degrees above normal for March.

For more information contact your local Soil Conservation Service office.

OLYMPIC PENINSULA RIVER BASINS

Streamflow Forecasts - April 1, 1994

Forecast Point	Forecast Period	<<------ Drier ------ Future Conditions ------- Wetter ------>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DUNGENESS RIVER nr Sequim	APR-SEP	92	107	117	73	127	142	160
	APR-JUL	83	95	103	79	111	124	131
	APR-JUN	62	71	77	79	83	92	98
ELWHA RIVER nr Port Angeles	APR-SEP	310	365	400	80	435	490	502
	APR-JUL	265	310	338	81	365	410	417

OLYMPIC PENINSULA RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

OLYMPIC PENINSULA RIVER BASINS
Watershed Snowpack Analysis - April 1, 1994

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Elwha River	1	180	67
Morse Creek	1	155	81
Dungeness River	1	149	62
Quilcene River	1	135	86
Wynoochee River	0	0	0

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Mount Crag SNOTEL